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ABSTRACT

Childhood abuse has been implicated in such difficulties as developmental lags, family dysfunction, social problems, and emotional distress. This paper presents a review of the empirical literature which examines the relationship between physical abuse and object relations impairment. Data in the literature were commonly derived from either Thematic Apperception Test or Bell Object Relations and Reality Testing Inventory analyses. Results of studies are grouped into four categories which are similar to categories suggested by the Object Relations and Social Cognition Scales. The categories are: complexity of object relations, affect tone, capacity for emotional investment, and accuracy of attributions. The studies most often used clinical and inpatient populations and found that physical abuse impacts these four areas significantly. The few studies that found disparities used slightly different factor analytical procedures or instruments. The limited scope of the research suggests the need for additional research with a broader range of measurement tools. (Contains 43 references.) (Author/EV)

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ED 409 107

**THE EFFECTS OF PHYSICAL ABUSE ON OBJECT
RELATIONS DEVELOPMENT: A REVIEW
OF THE EMPIRICAL LITERATURE**

A Doctoral Research Paper

Presented to

the Faculty of the Rosemead School of Psychology

Biola University

**In Partial Fulfillment
of the Requirements for the Degree
Doctor of Psychology**

by

Kryscie B. Mayer

May, 1996

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THE EFFECTS OF PHYSICAL ABUSE ON OBJECT RELATIONS DEVELOPMENT: A REVIEW OF THE EMPIRICAL LITERATURE

by

Kryscle B. Mayer

This paper presents a review of the empirical literature which examines the relationship between physical abuse and object relations impairment. Data was commonly derived from either Thematic Apperception Test or Bell Object Relations and Reality Testing Inventory analyses. Results of studies were grouped into four categories which were similar to categories suggested by the Object Relations and Social Cognition Scales. The categories included: complexity of object relations, affect tone, capacity for emotional investment and accuracy of attributions. Studies most often used clinical and inpatient populations and found that physical abuse impacts these four areas significantly. The few studies which found disparities used slightly different factor analytical procedures or instruments. The limited scope of the research suggests the need for additional research with a broader range of measurement tools.

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THE EFFECTS OF PHYSICAL ABUSE ON OBJECT RELATIONS DEVELOPMENT: A REVIEW OF THE EMPIRICAL LITERATURE

Introduction

In recent decades, a burgeoning awareness of physical abuse of children has sparked interest not only in ending the immediate pain of abuse, but also in identifying and preventing the enduring and multifold consequences which can emerge throughout a victim's life. Concerned writers and researchers have suggested that childhood abuse is implicated in such difficulties as developmental lags, family dysfunction, social problems, and emotional distress. It has also become more evident that varying degrees of emotional disturbance are frequently associated with a history of physical abuse.

Perhaps due to their frequent visibility, the repercussions of childhood physical abuse have gained the attention of therapists in recent decades. For instance, a history of abuse has been implicated in the emergence of subsequent aggressive traits, domestic violence, or criminal behavior (Zaidi, Knutson, & Mehm, 1989). Conversely, a pattern might ensue in which the abuse victim succumbs to repeated violence. In either

case, all too familiar to the therapist is the cycle of violence in which victims family, and themselves.

Children who have suffered physical abuse have also shown difficulties relating with peers, competing academically and maintaining sufficient attention in school settings. For instance, abused children have appeared socially inhibited and isolated as well as less cooperative relative to their nonabused counterparts (Camras & Rappaport, 1993; Howes & Espinosa, 1993; Salzinger, Feldman, Hammer, & Rosario, 1993). Furthermore, evidence exists for developmental delays among abuse victims, including deficits in language acquisition, problems in fine and gross-motor coordination, and even delays in growth hormone functioning (Allen & Wasserman, 1985; Heide & Richardson, 1987; Jensen, Pease, Bensel, & Garfinkel, 1991; Oates, Peacock, & Forrest, 1984).

More subtly, children who survive abuse have appeared vulnerable to emotional difficulties associated with depression, anxiety, and Post Traumatic Stress Disorder (Goldberg, 1989; Pelcovitz, Kaplan, Goldenberg, Mandel, LeHane, & Guarrera, 1994). Also, victims have demonstrated tendencies toward phobias, paranoia, and even obsessive-compulsive disorders (Surrey, Swett, Michaels, & Levin, 1990). Personality disorders have also been connected with abuse history, and may manifest in the reliance on primitive defenses, including projection, splitting, and dissociation (Kirby, Chu, & Dill, 1993; Margo & McLees, 1991; Pribor,

Yutzy, Dean, & Wetzel, 1993). Abuse has also been implicated in the development of relating styles characterized by avoidance and interpersonal sensitivity (Margo & McLees, 1991; Surrey, Swett, Michaels, & Levin, 1990). Finally, eating disorders, including bulimia nervosa and anorexia nervosa, have been associated with home environments characterized by various types of abuse (Schmidt, Slone, Tiller, & Treasure, 1993).

Along with other schools of thought, object relations theory has been used to describe emotional life as well as to identify and treat problems associated with physical abuse. Object relations theory has evolved in the effort to understand the internal struggles which follow early life trauma and which fuel the resulting behavioral difficulties. In the next several paragraphs, object relations will be described briefly, with an emphasis on the theoretical tenets that are reflected in the body of research examining the impact of physical abuse. Following that, instruments which have been used to operationalize object relations functioning will be described. Finally, the reader will be presented with a review of the recent literature which utilizes empirical techniques to quantify object relations functioning among victims of physical abuse.

Object Relations Theory

Object relations theory most broadly refers to the cognitive and affective patterns which, beginning in early infancy, continue to motivate

intrapsychic and interpersonal functioning throughout the life cycle. More specifically, theorists posit that an infant's affectively charged perceptions of self and other start with the infant-caretaker relationship, evolve over time, and grow into increasingly complex, differentiated representations through clearly definable stages of development. Thus, as life progresses, early life experiences are thought to inform the development of internal and external representations of self and other, and to determine how an individual fundamentally experiences the external world. Personality structure, therefore, is seen to develop from these internalized self-other representations which serve as the lens through which later ideas, experiences, and relationships are perceived.

Although works proposing variations of Object Relations theory fill libraries, the brief overview given here will focus on the developmental nature of the theory since this is what is most relevant to the empirical literature. Indeed, much of the current research which aims to describe object relations functioning speaks in terms of achievement or failure at various stages of development. The methods of research chosen and conclusions drawn most often have focused on the impact of abuse on development. Therefore, the brief overview which follows presents ideas proposed by prominent object relations theorists in terms of psychological development.

Object relations theorists generally agree that psychological health emerges from a developmental process. While theorists have proposed various stages or phases of development which differ in terms of time periods, capacities and tasks, all agree that adequate attending, emotional responsiveness, and a sufficiently reliable caretaker are essential to the development of the healthy adult personality. Authors also agree that disruptions in the early child-caretaker relationship result in disturbed object relations functioning. Thus, while the infant begins life physically and psychologically dependent on the primary caretaker, ideally, development brings the increasing complexity and differentiation which characterize psychological maturity.

Object relations theorists concur that the process of affective, cognitive and relational maturation begins in the earliest months of life. Some theorists assume that, during this time, the infant makes no distinction between self and other. This stage, therefore, is seen as the least organized, most poorly integrated time of life when self and object images remain largely undifferentiated. Mahler (1975) identified this as the normal autism phase, alluding to the dependent, self-absorbed, and undifferentiated position from which the child's life starts. During this time, the infant is aware only of his or her needs for food or soothing and the comfort which follows when displeasure is vocalized.

It is generally agreed that from the first months, the infant is aware of only two affective states: complete pleasurable good and complete painful bad. For the infant, bad is associated with hunger or pain, while good is experienced by having the bad eradicated. This stage is characterized, then, by a polarity of affect experienced by the infant, ranging from completely good to completely bad states. It is thought that as growth continues, the infant takes in or introjects the good (soothing) and bad (failing to sooth) aspects of the caretaker, and slowly differentiation between these two affective experiences begins to take place. Kernberg (cited in Greenberg & Mitchell, 1983) called this phase of life introjection, reflecting the idea that the infant identifies alternately with the positive or negative aspects of the caretaker.

In the next months of infancy, object relations theory assumes that good and bad affect continue to become separate experiences. Mahler called this normal symbiosis and indicated that during this phase the relationship between the infant and caretaker is characterized by fusion. The infant is thought to have gained an increased awareness of the mother as a separate, peripheral entity compared to himself, but the union between the two still appears to the infant as undifferentiated. Kernberg referred to approximately the same time period as the identification stage, noting that the infant internalizes the attributes or failings of the caretaker into his or her psychic life. From either perspective, good and bad are separate

experiences which the infant, due to yet undeveloped cognitive capacities, is not able to acknowledge simultaneously.

Stern, blending object relations tradition with his own observations of infant behavior, differed somewhat in his view of the child-caretaker union and subsequent psychological development. He argued that a growing sense of agency in an already established, thriving core self is made possible since the infant is aware of separateness between the self and caretaker. Early infancy is characterized by the development of various perceptions of the self, the collection of which serve as "the primary subjective perspective that organizes social experience and...moves to center stage as the phenomenon that dominates early social development" (Stern, 1985, p. 11). In Stern's model, the infant is attributed with skills as a "reality-tester" weighing expectations and fantasies of the caretaker with actual experience. The fantasies related to a sense of fusion which Mahler attributes to the infant are only possible in Stern's model after the development of a capacity for symbolization, as evidenced by language skills (Stern, 1985).

Despite their differences, all theorists agree that the infant relies on the caretaker for gratification and reliable nurturing. Ideally, the infant learns to count on his or her ability to communicate discomfort and need, and to assume that, in due time, soothing will follow. Further, the consistency of adequate caretaking continues to serve as a source for good

feelings and as a form on which the individual later builds a more complex and autonomous emotional life.

Mahler's last stage, separation-individuation, is the time in which the individual theoretically approaches psychological cohesion. This stage is characterized by an increase in the child's perceptual capacities to the extent that he can distinguish between internal and external sensations, thus discriminating between self and other. The practicing and rapprochement subphases of separation-individuation initiate the infant's experimentation with autonomy as well as intermittent returns to the mother to assure himself of her availability to continue to meet his needs. Separation-individuation theoretically represents the impact of adequate, reliable caretaking and the integration of disparate perceptions of self and other. Since the infant learns to view the caretaker as a separate object who remains attentive as he repeatedly comes and goes, he develops the ability to hold an internalized image of this caring object. In this way, the infant acquires the ability to soothe him or herself even when the caretaker is ungratifying or absent (Mahler, 1975).

Greenberg and Mitchell (1983) summarized Kernberg's reference to this stage as the time in which early affective experiences with the external world (i.e., the primary caregiver) are assimilated and organized as aspects of the personality structure. This is considered the most mature level, the ego identity stage. Although still young, the infant is thought to have

gained, through adequate caretaking, sufficient identifications and introjections so that the personality can function, grow, and mature throughout adulthood (Greenberg and Mitchell, 1983).

In light of theorized achievements characteristic of each developmental stage, research in object relations functioning often seeks to identify the failures or deficits which follow developmentally disruptive trauma. For example, fixation or failure of development at the autism phase has been variously associated with the most primitive forms of psychopathology, characterized by autism, psychosis, and the inability to differentiate self from others. In the symbiosis stage, given its emphasis on the incorporation of affective experience, a failure may be associated with an inability to hold negative and positive affect simultaneously. Failure to incorporate consistent caretaking may also be associated with a negative affective coloring of later life. Finally, since the final stages solidify the infant's internalization of a trustworthy consistent caretaker, failure in the final stages of development precedes one's inability to separate and individuate, function maturely, trust in the consistency of others, tolerate separation, or to function successfully in intimate relationships.

Regarding the impact of physical abuse during early life, object relations theory suggests that, when the early environment is characterized by neglect, punishment, or both, the child may not experience enough good (positive affect or consistent nurturing) to achieve the tasks set forth by

early stages of development. Therefore, the abused child may be more likely to fixate at a more primitive stage, unable to move forward towards psychological cohesion. Object relations theorists have written extensively about the evidence of abuse in patients who dissociate and even demonstrate alternate personalities. However, trauma is also implicated in the emergence of less obvious difficulties which imply a distinctive tie to a bad object, ineffectual relationships, weakened boundaries, and psychosomatic reactions (Scharff & Scharff, 1994).

Object relations theory suggests that since a child has a foundational and imperative relationship with the caretaker, if abused, the child is forced to find a way to reconcile the bad experience intrapsychically. The child may seek to preserve the relationship and attachment with the caretaker by introjecting the bad of the abuse, thereby preserving the good of the abusing caretaker. In fact, Kernberg theorized that the victim, still idealizing the abuser, is caught between "frail idealization and overwhelming aggression, creating a truly traumatic situation in which libidinal and aggressive strivings can no longer be differentiated" (cited in Akhtar, Kramer, & Parens, 1994, p.73). The victim therefore identifies with the aggressor or victimizer, and in turn may himself become a victimizer. Thus, object relations theory provides an explanation of the emerging cycle in which the abuse victim also becomes a repeated victim of abuse, while perpetrating abuse.

It is also thought that the victim of abuse responds with an internalization of the abuser or bad object in order to preserve the integrity of his or her safety needs. While this may be the victim's response in order to soothe his or her own needs for care, security, attachment, and contact, he or she may subsequently form an anxious attachment style, fraught with fear, guardedness, and depression. Further, the child may subsequently deny the experience of abuse, ignore emotions, and even feel deserving of punishment (Scharff & Scharff, 1994). Given the combination of internalized bad objects and an inability to internalize sufficient nurturing, it is easy to imagine that the abused child might grow up with varied and complicated emotional difficulties.

Methodological Considerations

Instruments and Evaluative Techniques

While behavioral or symptomatic manifestations of object relations impairment have been relatively easy to identify and measure using self-report, demographic or survey data, the abstract constructs which comprise internalized object relations have proven to be much more elusive to the researcher. Perhaps due to their abstract nature and the absence of the clearly defined and quantifiable constructs which observable behaviors provide, research examining internalized object relations is relatively rare. However, a number of studies have attempted to verify the utility of object

relations theory in understanding the psychological ramifications of physical abuse on children. In order to familiarize the reader with the small number of instruments used in object relations research, an explanation is provided prior to a review of the relevant literature.

Projective drawings. By far the most prevalent measures of object relations functioning among the physically abused have been projective techniques. Projective testing is thought to illuminate the dynamic and unconscious processes of personality structure. Among projective methods, drawing tests, such as the House-Tree-Person and Draw-a-Person, have been used in an effort to elicit interpersonal and intrapsychic dynamics. Through drawings, researchers examine aspects of drawings including body shapes, features, details, and expressions. They have hypothesized that they are able to gain a view of intrapsychic life from the ways in which these features are depicted.

Apperceptive techniques. Apperceptive tests such as the Roberts Apperception Test (RAT), the Child Apperception Test (CAT), and the Thematic Apperception Test (TAT) have also been used to view object relations among physically abused populations. Subjects are asked to tell stories, including a beginning, middle, and end, which are related to black and white pictures chosen by the examiner. Subjects are also asked to elaborate on the specific feelings of characters. The content of chosen

stories, as well as the feelings described are thought to represent the unconscious attitudes and feelings held by the subject.

The TAT has been seen by some researchers as a helpful method for assessing object relations because the stimulus provided depicts an ambiguous, social situation and is not likely to elicit the level of defenses which more straight forward questions might produce. Further, the TAT is designed so that subjects are likely to give enough detail in describing characters and relationships to provide adequate access to cognitive and affective patterns related to their typical functioning in intimate relationships (Tomkins, 1947).

Westen, Klepser, Ruffins, Silverman, Lifton, and Beokamp (1991) validated the Object Relations Scales and Social Cognition Scales (ORSCS) as a systematic method for scoring the TAT as a measure of object relations phenomena. Four interrelated but separate scales were defined to correspond with four aspects of object relations: (a) complexity of representations of people (CR), (b) affect-tone of relationship paradigms (AT), (c) capacity for emotional investment in relationships and moral standards (CEI), and (d) understanding of social causality (USC). Scores on these scales range from 1 to 5, with 1 indicating the most primitive themes in stories and 5 indicating the most mature (Westen, 1991; Westen et al., 1991).

Westen et al. (1991) concluded that the TAT is a valid measure of developmental history in addition to its more traditional use as an indicator of psychopathology. The authors hypothesized that the ORSCS system describes levels of psychological development impacted by maturation. To examine this, the study compared the average scores of 2nd and 5th graders with the average scores of 9th and 12th graders .

The initial hypothesis was validated when the older children gave developmentally more mature responses on three out of four scales. While all variables appeared during elementary school years, scores on the CR, CEI, and USC scales showed significantly increased complexity with more mature subjects. Only scores on the AT scale remained similar between age-groups. These results indicated that with the exception of Affect Tone, the scales may be viewed as an indication of developmental level or psychological maturity. Affect Tone was seen as consistent throughout the age-groups and, therefore, was not seen to reflect maturation; young subjects were not seen to evolve from malevolent to benevolent representations with development.

Also relating the TAT to measures of object relations, Barends, Westen, Byers, Leigh, and Silbert (1990) found that the ORSCS system correlated with analogous object relations scales developed for use with other forms of narrative data such as psychiatric interviews, early memories, and psychotherapy transcripts. Significant correlations were found between

the four scales and other validated instruments such as Blatt, Wein, Chevron, and Quinlan's (1979) measure of Complexity and Affective Quality of Parental Representations, and Loevinger's (1976) Test of Ego Development (cited in Barends et al., 1990) .

Adequate interrater reliability for the ORSCS was reported in all four dimensions with correlations utilizing the Spearman-Brown correction for multiple raters ranging from .82 to .97. Correlation coefficients have been computed between each of the four scales which show them to be moderately related (Westen, 1991; Westen et al. 1991). Researchers deduced from these data that these scales measure interrelated but indeed separate facets of object relations.

Rorschach. In addition to the TAT, the Rorschach has been used as a projective measure of object relations functioning among abused populations. In this method of testing, subjects attribute various pictures or designs to ambiguous black and white and color designs or ink blots . Responses are then coded by examiners with various determinants, indicating the presence of whole or partial human or animal images. Also, movement and the quality of movement are coded. The quality of a respondent's answer and the varied content of the responses are indicated and coded. Finally, the examiner indicates if a response reflects illogical or morbid subject matter. Rorschach response determinants are thought to manifest pathology demonstrated by the respondent.

Impaired accuracy with which subjects perceive whole or partial humans has been found to indicate impaired object relations. Blatt, Brenneis, Schmidt, and Glick (1976) found that the number of accurately perceived whole or partial human responses was fewer in psychiatric inpatients in comparison with normal control subjects. Human movement indicated by psychiatric inpatients was characterized as unmotivated, malevolent or incongruent (cited in Timmons-Mitchell, 1982).

Urist (cited in Timmons-Mitchell, 1982) developed a Mutuality of Autonomy Scale which took into consideration the interactions between characters and was thought to reflect the nature of the respondent's perception of object relationships. This scale is comprised of seven levels which produce scores reflecting the extent to which a subject endorses reciprocal relationships that are also respectful of mutual autonomy. A range of human activity themes are scored, from purely recreational and benevolent (e.g., "Two people dancing"), to completely malevolent, one-sided action in which one character overpowers the other ("the monster is going to kill him and rip his guts out") (cited in Timmons-Mitchell, 1982, p. 64). The lowest level reflects themes in which the figures are autonomous, separate, and involved with each other in respectful ways. As the levels increase, the extent to which characters' relationships and activity are compromised by an imbalance of power, abuse, or malevolent control also increases.

This scale examines the quality of a subject's capacity for separateness and differentiation with respect to those around him. Deficits in object relations shown by high scores have been associated with subjects' expectations to be controlled or overwhelmed. Further, high scores indicate unstable and insufficient, rigid or overly defended boundaries. Mature object relations, indicated by low scores, have been associated with those who show flexible, yet secure perceptions of boundaries and autonomy (Urist, 1977, cited in Timmons-Mitchell, 1982).

Self-report instruments. In addition to projective methods, empirical research in object relations also relies on the interpretation of specific self report data. The Bell Object Relations and Reality Testing Inventory (BORRTI), was developed as a self-report instrument to assess object relations and reality testing (Bell, 1986). This scale was designed to measure ego functioning according to the way an individual reports his or her view of relationships and experiences with others.

The BORRTI provides 90 true-false items which form two separate scales: Object Relations and Reality Testing. These two scales produce a single Object Relations score. Four Object Relations subscales are

The Reality Testing scales were designed to indicate problems in reality testing capacities with three measures: Reality Distortion, Uncertainty of Perceptions, and Hallucinations and Delusions. Themes which contribute to the Reality Distortion scale include inaccurate

perceptions, implausible attributions and unfounded beliefs. Constructs of the Uncertainty of Perceptions include habitual doubtfulness and obsessive thinking. Finally, the Hallucinations and Delusions scale estimates the extent to which a subject acknowledges sensory experience of nonexistent phenomena.

Bell et al. (1986) tested the reliability of the BORRTI through factor analysis and replication procedures, and suggested that this is a valid measure of object relations. The Object Relations subscales have demonstrated reliability between .58 and .90. The Reality Testing subscales have shown reliability between .63 and .85 (Bell et al., 1986).

Miripol (cited in Bell et al., 1986), compared an early version of the Bell Object Relations Inventory and other projective measures with revised Object Relations subscales of the BORRTI. The authors found adequate reliability demonstrated by the revised scales. In fact, compared with the other instruments, the Object Relations subscales reflected the highest reliability and correlation between pathological Bell Object Relations scores and MMPI Depression and Neuroticism factors. Face validity was suggested by inverse correlations between Object Relations score of the BORRTI and MMPI Social Extroversion and Family Attachment factors.

Limitations of Instruments

Since the body of research examining object relations functioning among the physically abused is relatively new and small, the instruments

used are not without limitations. Primarily, since the ways in which researchers conceptualize object relations vary, there is no systematic definition of object relations, nor is there an agreed upon way to measure object relations constructs. For instance, while a number of studies in this review relied on the ORSCS scoring system to provide descriptions of object relations functioning, others operationalized tenets of this theory using the scales of the BORRTI, aspects of projective drawings, responses to the Rorschach, and the narrative data from RAT cards. Therefore, as instruments differed, the methods of scoring, obtained results, and ultimate conclusions also differed.

Limitations of Methods

The body of research is limited, and, at present, lacks a sufficient examination of validity among diverse populations. While a number of different studies have been conducted on physical abuse, they have most often studied subjects recruited from either inpatient or outpatient populations. Therefore, it is unknown to what extent the selection of samples might impact the significance of results. Furthermore, since control groups were also often pulled from clinic or hospital populations, it is unknown to what extent any confounding, preexisting conditions were represented among them.

Review of Research

For the sake of organization, the following research results are presented in four separate categories of object relations functioning. These groups, the reader will note, parallel the ORSCS categories first developed by Westen et al. (cited in Westen, 1991). Although certainly not all-inclusive in their encapsulation of object relations functioning, these categories appear to represent the results generated in the small research pool which attempts to address the effects of physical abuse on object relations. Although varied in scope and technique, the results of this body of research consistently reflect these four aspects of object relations functioning: patterns in mental representations, affect life, emotional investment in relationships, and beliefs relating to causality.

Patterns in Mental Representations

Among research regarding object relations functioning, the first aspect that has emerged as distinct and measurable is the complexity of one's internal representations. Referring to Jacobson's ideas regarding object representations, Greenberg and Mitchell (1983) suggested:

The ego cannot acquire a realistic likeness to the love object unless admired traits of this object become enduringly introjected into the child's wishful self-images....The "self and object world" are thus the

medium through which relations with others are assimilated and become usable for structural change. (p. 310)

Pathological development is seen, in part, as a failure to integrate representations of self and other in order to form a working, successful personality. Evidence of a healthy personality can include one's consistent ability to differentiate between self and others. This construct is also demonstrated in one's ability to utilize well-developed defense mechanisms rather than primitive ones, such as splitting and projection, which are often seen in those with poorly integrated self and object representations.

In three studies, Westen, Ludolph, Block, Wixom, and Wiss (1990); Freeddenfeld, Ornduff, and Kelsey (1995); and Thode (1994), the ORSCS scoring system was used to examine the complexity of internal representations manifested by physically abused subjects. Scores on the Complexity of Representations (CR) scale were analyzed. Lower level responses reflected more primitive aspects of development, suggesting the lack of well-differentiated, complex, or integrated self and object representations. The lowest scoring responses reflected characters who were not clearly differentiated from one another, who had weaker boundaries, or who confused one another's points of view. As scores on this scale increased, the extent of subjects' attributions of complete dispositions to clearly differentiated characters also increased. Therefore, at the most

mature levels, characters were described as having complex motivation, ambivalent feelings, or mixed attributes.

In a study designed to explore the relationship between developmental history and dimensions of object relations, Westen et al. (1990) analyzed the TAT responses of psychiatric inpatient adolescent girls ($n = 36$). Using the ORSCS, the authors found significant deficits in complexity of object representations. It was hypothesized that developmental risk factors, including physical abuse, sexual abuse, neglect, extrusion from the home, and inappropriate parental behavior, were predictive of pathological object relations. Risk factors were identified through both retrospective psychiatric interviews and chart review of selected admitted patients. Risk factors were divided between those occurring during preoedipal years and those occurring later in latency years, and indices of each were compiled.

Each response was double-coded independently by two evaluators who indicated a score of 1 to 5. Mean scores as well as the percentages of each level of response for each group were calculated. In this study, the presence of a physically abusive father significantly correlated with lower CR scores. However, contrary to the expected results, subjects who had experienced maternal abuse showed significantly higher levels of complexity than nonabused counterparts. Similarly, the presence of inappropriate parental behavior was associated with a larger percentage of higher level responses.

Authors did not suggest any rationale for this trend and pointed out that preoedipal risk factors, as a group, significantly correlated with deficits in all four dimensions of object relations studied.

With respect to latency-aged risk factors, however, no significant correlations were noted. Therefore, results suggested that the earlier in life subjects experienced trauma, the more frequently subjects offered poorly differentiated responses. Results, therefore, underscored the importance of the maternal relationship in shaping object relations. In sum, Westen et al. (1990) suggested that findings supported the validity of object relations theory's emphasis on preoedipal development, as well as the impact of trauma on later development.

The preceding study is not without its limitations. Retrospective data were collected through chart review and could not be verified. Also, the sample used was small, and was comprised of only adolescent, inpatient females. Therefore, it is unknown whether any applicability exists with preadolescents, adults, males, or nonpsychiatric patients. Given the small sample size, the authors noted that it was also not possible to correct for spurious findings or to guard against subjectivity in selecting subjects. Furthermore, following numerous t tests between dependent variables, the authors did not indicate how or if they corrected for experimental error. Although this study suggested a significant correlation between preoedipal

risk factors and subsequent object relations impairment, causality cannot be inferred directly .

Freeddenfeld et al. (1995) designed a similar study and collected data from physically abused children ($n = 39$) and nonabused children ($n = 39$). Subjects ranged in age from 6 to 16 years old. Stories were provided to raters on separate sheets to ensure that they were blind to the study's participants. The WISC-R was given and physically abused subjects were not found to differ significantly on areas of intelligence. Archival data was collected and subjects were seen as comparable on other demographic data such as age, race, and family structure. Physical abuse was defined as "an act in which an adult caregiver injures a child not by accident, but deliberately or in anger" (Freeddenfeld, 1995, p. 557).

Physically abused subjects were hypothesized to manifest significant object relations impairments in comparison to the nonabused control group. Significant differences were expected to emerge as significantly lower mean scores on scale CR and as a significantly greater number of level 1 responses. To test the hypotheses, two multivariate analyses of covariates (MANCOVAs) were performed with history of abuse as the independent variable and scores across the four scales as the dependent variables. Also, in each analysis, age and mean word count were incorporated as covariates.

Participants who had been physically abused showed lower mean scores on the CR scale than those in the nonabuse group. A significant main

effect for the group was calculated ($r = .47$). However, the control group did not obtain either significantly fewer level 1 scores or higher mean scores. It was noted that both abused and nonabused subjects obtained low scores on this scale in comparison with another sample extracted from the community. In explanation, the authors suggested that "deficits in the ability to view self and others in complex psychological ways may not be idiosyncratic of abuse victims" (Freeddenfeld, 1995, p. 554).

From the MANCOVA, the study found that age and word count made significant adjustments to the CR scale. These results concurred with the earlier findings of Westen et al. (1991) in which direct correlations were noted between age and CR scale scores, and further supported the suggestion that complexity of representations may be expected to improve with maturation. This study made a contribution to the research by analyzing object relations development with respect to the gender of perpetrators as well as victims; however, no significant effects were noted in this analysis.

In light of their unsupported hypothesis predicting the impact of physical abuse on one's complexity of object representations, Freeddenfeld et al. (1995) suggested:

Childhood trauma does not necessarily lead to a disturbance in all aspects of object relations. That is, different aspects of object relations can be affected by the trauma of abuse, although other

aspects may remain relatively unaffected. This multidimensional nature of object relations is important to consider when evaluating the impact of physical abuse. (p. 565)

It should be noted that the nonabused subjects were drawn from referrals to a child guidance clinic for emotional or behavioral difficulties (e.g., depression, conduct problems, hyperactivity). Therefore, results may have been clouded by variables introduced by these other difficulties. A nonclinical control group may have contributed even more significant data regarding the impact of abuse on subjects' capacity to maintain object representations.

Thode (1994) studied the TAT responses of sexually ($n = 28$) and multiply abused subjects ($n = 24$). Recruits were obtained from an outpatient children's clinic. The TAT was administered and the scores of all abused subjects were compared with those of a clinical control group who had no history of abuse ($n = 24$). The multiple abuse group consisted of physical and sexual abuse ($n = 12$), sexual abuse and neglect ($n = 12$), and sexual abuse, physical abuse and neglect ($n = 2$). Documentation of abuse cases was obtained from case files of children who were referred to a clinic for treatment. Nonabused subjects were also clinic referrals who were to receive treatment for conduct disorder, major depression, adjustment disorder or anxiety.

It was hypothesized that, in comparison with those who experienced only sexual abuse, multiply abused subjects would show significantly more impairment in the ability to differentiate self from others and to recognize the complexity of others' personality dispositions. Multiply abused subjects were expected to manifest a higher frequency of level 1 scores as well as lower mean scores in comparison with the nonabused control group and those who had only experienced sexual abuse. Results of the study did not support the hypothesis predicting significant differences in complexity of object relations based on the type of abuse which occurred. However, by combining the sexually and multiply abused groups, a slight tendency towards higher frequencies of level 1 responses was demonstrated.

Similar to the previously mentioned authors, Stovall and Craig (1990) examined the mental representations of abuse victims using the TAT to operationalize aspects of object relations functioning. This study collected data from physically and sexually abused children aged 7 to 12 with same-age children from distressed homes. The authors used a control group of subjects from distressed homes in order to isolate the specific effects of abuse on object relations, versus the effects of generalized conflict.

Among the research sample, 20 sexually abused, 20 physically abused and 20 nonabused but distressed females, were tested with the Piers-Harris Children's Self-Concept Scale along with the TAT. In this study, abuse was defined as harm to a child at the hands of a primary caretaker which was

severe enough to warrant medical hospitalization and removal from the home. Abused females were expected to perceive others as less psychologically distinct than their counterparts from distressed homes. Mental representations as well as self-concept were quantitatively analyzed through TAT responses and Piers-Harris data and qualitatively analyzed from direct, clinical observations of TAT responses and of children's interactions with the examiners.

TAT data were collected using the Internalized Object Relations Scale (Taylor and Eranzen, cited in Stovall and Craig, 1990) and the Aron Scale (cited in Stovall and Craig, 1990). The Internalized Object Relations Scale is composed of eight separate subscales designed to assess Self-Other Differentiation, Other-Other Differentiation, Other's Disposition Towards the Self, Intactness with Others, Disposition Towards the Self, Existence of Interaction, Gratification of Relationships, and Nature of the Self-Other Tie. Similar to the ORSCS system, scores ranged from 1 to 5 for each subscale. A low score suggested poorly developed object relations while a higher score reflected more mature object relations.

No significant differences in the distinction between self and others among physically and sexually abused groups were detected by the Object Relations subscales. The authors speculated that they did not find significant differences between the impact of physical and sexual abuse on object relations because the scales used were not sensitive enough to the

specific concerns of either group. However, both groups differed significantly in their perceptions of self and others in comparison with the nonabused (though distressed) group. Therefore, results indicated that impaired object relations functioning was directly correlated with abuse, rather than with generalized conflict. Authors stated that their results appeared to refute the positions of researchers who minimize psychological differences between abused and nonabused children from distressed homes.

Timmons-Mitchell (1982) examined the nature of internal representations of children from abusive homes. Two hundred parents of children 7 to 10 years of age from a child guidance clinic population were surveyed to determine if they had ever been the cause of broken bones, bruises or burns to their children. Out of the initial survey, 50 completed the questions and 15 reported that they had abused their children. Three groups were then selected: one comprised of the 15 abused children; and two comparison groups comprised of 15 children each, one drawn from a local child guidance clinic, and the other from a parochial school. All three groups were matched for age, gender, and race. The parents of children from the comparison groups were administered a similar questionnaire to determine the absence of any abuse history.

It was hypothesized that abused children would demonstrate impaired capacity to conceptualize other people and to expect to cooperate with them. This characteristic was expected to be manifested as fewer human

responses on the Rorschach. When the abused group was compared to the clinic and school samples, results indicated significant qualitative differences between the mutuality of autonomy in M (human) responses. The abused children responded with significantly fewer human movement responses, as well as with significantly more impairment in the quality of responses than the two comparison groups. This suggested that the abused population showed difficulties in viewing others as separate individuals or as persons with whom cooperative interaction is possible.

Affect Life

Greenberg and Mitchell (1983) paraphrased Kernberg's notion that for the child, the internal world is affectively colored by his or her interactions with significant others in the external world. It follows, then, that a negative affective coloring stems from frustrating or adverse experiences of others, as well as from the projection of rage or aggression onto others, who are then internalized as bad internal objects. The affect tone of later life is therefore established by early attachments (Greenberg and Mitchell, 1983). Attachment behavior "ensures the child proximity with the caregiver, [and] is most apparent during periods of early childhood distress" (Friedrich, 1993, p. 106). Skills developed in early attachments are thought to grow and develop in "reciprocal and mutual relationships across the life span" (Friedrich, 1993, p. 106).

According to Mahler, early caretakers give the child the opportunity for the integration of his or her loving and aggressive impulses (Mahler, 1975). Mahler stressed the impact of the caretakers' attitudes toward the child on the child's subsequent expression of affect. This process underlies one's ability to maintain a hopeful view of the world, to maintain an internalized good object and to take part in positive interpersonal relationships. Among research in the area of object relations, the previously cited studies, as well as others, have commented on the impact of physical abuse on the development of affect tone.

The previously cited studies conducted by Westen et al. (1990), Freeddenfeld et al. (1995), and Thode (1994) examined the affect tone of abused subjects by examining scores obtained on the AT scale in the ORSCS scoring system. This scale was thought to reflect the affective quality of object representations. At the lowest level, characters were seen as abused or abusive, victims or victimizers, and their social worlds were viewed as completely malevolent and overwhelmingly painful. Increasing scores on the scale were associated with descriptions of characters or situations that had a more positive tone and a broader range of affective expectations. At the highest level, relationships were seen as predominately positive and enriching.

Westen et al. (1990) reported a significant frequency of high-level responses on the affect tone (AT) scale of the ORSCS used to score

responses of physically abused subjects assessed with the TAT. The presence of abusive fathers was found to be associated with fewer high-level responses on the Affect Tone scale. In general, however, maternal variables, including psychiatric illness, surrogacy, and prolonged separations, were more significant and predictive of object relations difficulties than paternal variables. The study also found that a history of physical abuse, compared with the other forms of preoedipal risk examined, had its greatest impact on affect-tone, suggesting that, among physically abused subjects, the most significant deficits measured included malevolent expectations and feelings of victimization.

It was found that latency-aged risk factors did not demonstrate a significant impact on affect tone. Preoedipal experience, however, appeared to be associated significantly with affect tone. It should be noted that the authors referred to another study that they conducted in which they found that the AT scale was not correlated with age (Westen et al. 1991). Thus, it was concluded that abuse does not result in developmental arrests; rather, abuse appears to result in affective abnormality.

Complementing ideas generated by Westen et al. (1990), Freedman et al. (1995) hypothesized that physically abused subjects would generate a significantly large percentage of low level responses, as well as low mean scores on the AT Scale. The hypothesis was supported by the data and suggested that abused subjects demonstrated a malevolent world view.

Freeddenfeld et al. (1995) suggested that victims of physical abuse "perceive the world and their relationships as malevolent and unpredictable, and tend to retrieve more pathological representations in which the world is overwhelmingly painful and threatening" (p. 563).

While previous research by Westen et al. (1991) found the AT scale to be the only one not associated with age, Freeddenfeld et al. (1995) found a direct correlation between age and the AT Scale. That is, these results suggested that the younger subjects more often provided responses with more malevolent affect tone. Findings led Freeddenfeld et al. (1995) to infer the impact of negative association between early abuse and developmental processes.

Results obtained by Stovall and Craig (1990) supported the preceding implications wherein abused subjects experienced a negative world view. They hypothesized that, as a result of abuse, subjects would show a significantly more impaired image of self as evidenced on the TAT and the Piers-Harris Self-Concept Scale, than those who have only reported histories of distress. These two measures were used in an effort to elicit both the conscious (self-report) and unconscious (projective) perceptions of self and others.

Following a two-way, repeated measures ANOVA performed on group data, the abused group scored significantly higher on the Piers-Harris Children's Self-Concept Scale than on the Object Relations Scales. The

nonabused group, however, reflected more congruence between these two measures. The research concluded that, among abused subjects, the unconscious perceptions of self and other were significantly more negative than their conscious perceptions. The authors inferred from the results that physically abused subjects seemed to "split off from consciousness... the negative aspects of their perceptions" (Stovall & Craig, 1990, p. 241).

Aron's Scale (cited in Stovall & Craig, 1990) was also used in conjunction with the TAT in order to examine any differences in aggression experienced by the self, in abasement as experienced by the self, and in aggression against others or as coming from others. The dimensions of aggression experienced by the self were Physical, Coercive-Restraining, Verbal, and Passive, and the dimensions of abasement in the scale included Submissive-Intragressive and Intragressive. One point was given to the response if the TAT story included the presence of any variable and a zero was given if it was absent. Although a one-way ANOVA was performed on the mean scores from each subscale, there were no significant differences between any of the groups on any subscale.

Besides the characteristics reported through quantitative data, a qualitative analysis of abused subjects' responses was conducted in order to indicate different constructs tapped by the stories. In these observations, frequent themes of broken or damaged property were noted, suggesting internalized images of brokenness or damage. Furthermore, consistent

themes of confusion were identified suggesting the abused child's struggle to locate the source of the damage or abuse. The authors noted that if the abusive parent was seen as bad, then this offered relief from internal distress experienced by the subject. They also added that "if the fault...is attributed to the parent, the child is left with a bad, internal perception of the parent as incapable of providing the child with any internal comfort or support. If the child locates the bad within herself, then the fault and sense of badness remains lodged internally" (Stovall & Craig, 1990, p. 240). In light of these results, the authors concluded, "it is a constant struggle for the abused child to locate the source of the bad and to understand who is the victim and who is the aggressor" (Stovall and Craig, 1990, p. 242).

Similarly, Briere and Runtz (1988) noted among a population of university women ($n = 251$) significant correlations between physical and psychological maltreatment. They also reported levels of depression, anxiety, interpersonal sensitivity and suicidal ideation. The women were given self-report questionnaires which included items regarding physical and psychological maltreatment and were scored separately for maternal and paternal experiences. The Texas Social Behavior Inventory and the Hopkins Symptom Checklist which included a five-item dissociation scale were also given. Results indicated that maternal abuse did not significantly differ from paternal abuse in its correlation with affective difficulties among subjects. These results differed from the results of Westen et al. (1990)

which suggested that paternal physical abuse significantly correlated with high scores on the Affect Tone scale.

The multivariate analysis of results in this study indicated a similar trend as that of Stovall and Craig (1990) in that low self-concept was not positively correlated with physical abuse. The results supported the suggestion that while on a conscious level, physical abuse victims may demonstrate a relatively positive self-concept, they may experience a more negative self-concept at the unconscious level.

Noting a similar tendency among abused subjects to retain a more positive, conscious self-image, Gardner et al. (1990) utilized video technology to study the internal representations of body image in 41 children, 11 of whom were physically abused. The subjects were instructed to view a TV monitor on which a video image of their body appeared. They were then asked to indicate whether or not the image had been distorted slightly in size. Subjects were also asked to indicate if the image shown was too fat or too thin. Though no results were significant, physically abused subjects, in comparison with nonabused and sexually abused subjects, were less inclined to identify the presence of any distortion. Directly contrary to this, sexually abused subjects were more likely to report distortion, even when it was not actually present.

In another study designed to examine the unconscious self-image of physically abused children, Hjorth and Harway (1981) compared the human

figure drawings of physically abused adolescents ($n = 30$) with those of normal adolescents ($n = 30$) using the Draw-A-Person Test. The drawings were objectively rated in eight categories: size, erasure, environment, clothing detail, fingers, symmetry, and arm position. From data collected through observations of completed drawings, significant differences emerged between the drawings of the two groups on six out of the eight scoring criteria utilized.

The authors inferred that these findings concurred with clinical descriptions of "abused adolescents as having poor interpersonal relationships, introversive tendencies, insecurity, anxiety, poor body image, poor adjustment, poor self-concept, and sex-role confusion" (Hjorth and Harway, 1981). Although the latter two studies contained small subject pools and utilized more sparsely validated procedures, reported results concurred with results generated from complementary TAT analyses, suggesting a more negative, albeit unconscious, representation of self among those who have experienced physical abuse.

Using the Mayman's Early Memories Test (Mayman, cited in Nigg, Silk, Westen, Lohr, Gold, Goodrich, & Ogata, 1991), Nigg et al. (1991) tested male and female inpatients between the ages of 18 and 60 in order to examine the association between Borderline Personality Disorder and a history of physical or sexual abuse. Fifty-eight participants were given a Diagnostic Interview for Borderlines and 29 of these were determined to

meet the criteria of the DSM-III for Borderline Personality Disorder. Fourteen subjects were determined to meet the criteria for a major depressive disorder in light of the Research Diagnostic Criteria for a Selected Group of Functional Disorders. Interviewers were blind to the diagnosis of the subjects. These clinical samples were compared with 15 normal subjects who were recruited from the community. Control group volunteers responded to an advertisement for emotionally healthy individuals who had never been in therapy and who felt content with their lives (Nigg et al., 1991).

All subjects were given a Family Experiences Interview and a modified version of the Mayman's Early Memories Test. Each subject was asked to report earliest memories of his or her mother and father, as well as earliest memories of feeling scared, angry, snug, excited, and ashamed. Each was also asked to report his or her most happy and unhappy memories, as well as a favorite early memory.

It was hypothesized that borderline, abused subjects would more often report earliest memories in which others were more injuring, less helpful, and more malevolent, in comparison to normal and depressed subjects. To examine this, subjects' responses were analyzed with respect to four scales of the Early Memories Test: accounts involving deliberate injury, effectiveness of helpers in accounts in which injury or illness occurred, affect-tone in the relationships portrayed in the accounts, and accounts that

portrayed extremely malevolent interactions. Scales were each coded on a 5-point, ordinal scale with a 1 indicating most malevolent themes, and a 5 indicating most benevolent.

Deliberate Injury scores occurred significantly more frequently among subjects who had experienced sexual abuse, but not among those with a history of physical abuse. Responses which contained themes of deliberate injury appeared to discriminate borderline subjects who reported sexual abuse from those who had not. Following logistic regression analyses in which demographic and diagnostic variables were tested for predictive validity with deliberate injury as the dependent variable, physical abuse did not demonstrate significance.

Emotional Investment in Relationships

Among object relations theory, healthy development is seen as instilling in the child a capacity for emotional investment in relationships. Kohut, in his discussion of trauma, stated that the child is at risk for the development of impaired empathy and truncated relationships (cited in Scharff & Scharff, 1994). Object relations theory maintains that in healthy development, one demonstrates the capacity to manage one's own wishes and impulses for the benefit of others, as well as the capacity to invest in morality, belief systems, laws, or ideals. Among the literature regarding physical abuse, theorists have suggested that abuse victims often show difficulty investing in relationships. Object relations researchers have

examined one's ability to demonstrate genuine empathy, to adhere to moral standards, and to invest in others for their unique attributes rather than for one's own needs and gratification,

The previously cited studies conducted by Westen et al. (1990), Freedman et al. (1995) and Thode (1994) examined the capacity for emotional investment of abused subjects by examining scores obtained on the CEI scale in the ORSCS scoring system. This scale was designed to estimate maturational development in one's ability to invest emotionally in relationships and moral standards. Responses, at the lowest level, reflected characters as existing only in relation to themselves. Rules and authorities were not considered and were seen as obstacles. At higher levels, characters began to recognize the needs of others, and investment in relationships occurred. An increasing emotional investment or knowledge of right and wrong was thought to parallel increasing scores. At the highest levels, characters were seen to treat relationships as ends rather than means; that is, characters attempted to develop an autonomous selfhood within the context of real involvement with others.

In analyzing TAT responses and the correlation between object relations impairment associated with preoedipal and latency-aged risk factors, Westen et al. (1990), found an association between preoedipal risk factors and subjects' impairment in emotional investment as measured by the CEI scale. Although no direct correlation was reported between

physical abuse history and later difficulties with emotional investment, a significant correlation was found between maternal psychiatric illness, paternal separation and adoption, and difficulties with emotional investment. This study did not find any significant correlation between latency-aged risk factors and subsequent difficulties as measured by the CEI Scale.

Freeddenfeld et al. (1995) reported that physically abused subjects obtained significantly higher percentages of Level 1 scores as well as significantly lower mean scores on the CEI scale in comparison with their nonabused counterparts. The authors concluded that victims of abuse demonstrated little investment in morals and empathy for others, as well as increased sociopathic tendencies. Implications of these results included the possibility that abused subjects experienced poor social interaction, family dysfunction, negative view of relationships, and deficient capacity for empathy.

The researchers went on to theorize that the egocentricity evidenced by abused subjects in this study "may be related to a failure in the development of self-regulatory processes which may derive from abusive attachments to parents who are unable to provide the empathy, emotional involvement and nurturing necessary for the development of a healthy cohesive self and a sense of concern for others" (Freeddenfeld et al., 1995, p. 555). An impaired capacity for emotional investment in people and moral

standards may explain findings that show physically abused children to have less social sensitivity.

Similarly, Thode (1994) employed the CEI Scale and did not find any direct correlation between abuse and later difficulties in this area. It was noted, however, that multiply abused girls did show a nonsignificant trend towards more severe impairment in their capacity for emotional investment in relationships and moral standards in comparison with nonabused subjects.

Among the Extent of Interaction, Gratification of Relationships, and Nature of Self-Other Tie scales of the Internalized Object Relations Scale used by Stovall and Craig (1990), no significant differences between physically abused and sexually abused subjects in pairwise comparisons were found. However, significant differences between the abused and the nonabused subjects did emerge. Results support the assumption that abuse may foster difficulty in social interaction as well as in participation with social custom.

Others have found similar results in studies which have examined antisocial pathology in abused children as well as failure in ability to empathize with others. For instance, research abounds indicating the correlations between physical abuse, aggression, and antisocial personalities. For instance, Reidy (1977) used the TAT to find that abused

children exhibited significantly higher levels of fantasy aggression using the Hafner and Kaplan scoring system.

In a later study, Straker and Jacobson (1981) found analogous results using the Children's Apperception Test (CAT). Among a small subject pool, abused children scored significantly higher on measures of emotional maladjustment and deficits in empathy. The authors concluded that their results underscored the importance of the parent-child relationship in modeling comfort and nurturing.

Kaleita (1990) found comparable results in a study designed to examine interpersonal relationships and attachment styles of abused adolescents using the RAT. Between physically abused ($n = 31$) and neglected adolescent ($n = 32$) groups, significant differences were found on 5 of 13 dependent measures of the RAT. The five measures were Support, Resolution of Conflict, Indicators of Unresolved Conflict, Maladaptive Outcomes, and Deviation Responses. These results implied that abused and neglected adolescents evidenced significantly impaired expectations that parents and other adults could be relied upon for comfort and aid in times of trouble. This study also suggested that abused subjects evidenced difficulty resolving conflicts between themselves and others (Kaleita, 1990).

Timmons-Mitchell (1982) hypothesized that abused children would demonstrate fewer human responses on the Rorschach, suggesting a tendency to withdraw from interaction with others or to expect malevolently

controlling relationships. Results did not support the hypothesis, finding that abused children did not obtain fewer human responses than children in either of the comparison groups. The authors pointed out, however, that abused children were noted to have difficulty with the Rorschach task. They showed a tendency to remain aloof from the examiner, some even inquiring about being "tricked" by the testing process. Therefore, though the statistical results were not supportive of the hypotheses, the behavioral observations concurred with the underlying speculations regarding physical abuse and impairment in a victim's ability to invest in relationships.

While the assessment process and criteria were different from that of projective measures and results should not be equated, constructs which were supported through use of the BORRTI are comparable to those illuminated by projective measures. For instance, Hadley, Holloway and Mallincrodt (1993) hypothesized that adult respondents from dysfunctional families ($n = 97$) would demonstrate impaired object relations through low scores on the four Object Relations Scales of the BORRTI. Criterion measures from object relations, self-psychology, and attachment theories were selected. The Reality Testing Scales of the BORRTI were removed since the authors were not interested in examining severe pathology. Family dysfunction was defined as a family in which: (a) physical, emotional or sexual abuse was experienced; (b) one or both of the primary caretakers were unable to fulfill their family responsibilities due to mental illness,

chronic physical illness, or substance abuse; (c) parents were either unpredictable; or (d) parent-child interactions were uncaring, neglectful, or critical (Hadley et al., 1993).

Although Hadley et al. (1993) did not construct the study to examine specific dysfunction variables separately, they did find significant correlation between all four scales of the BORRTI and subjects' responses to the Self-Report Family Inventory. The degree of family dysfunction was significantly correlated with internalized shame, object relations deficits, and presence of addictions and emotional problems. Also, the authors examined the relationship between parental alcohol abuse and object relations impairment as compared with dysfunction without the presence of alcohol abuse. Although the level of family dysfunction was generally high, no significant differences were observed between adult children of alcoholics and adults from families whose dysfunction was not due to substance abuse. Therefore, they inferred that object relations impairment was largely due to family chaos, unpredictability, and instability rather than the presence of alcohol abuse, per se.

Contrary to expectation, family dysfunction was negatively correlated with two self-psychology constructs: Goal Instability and Superiority. However, goal instability may, in fact, have tapped "other directedness" or a need for attachment, direction or structure from another who was perceived to be more powerful and protecting. If the experience is one of harsh,

demanding, or hurtful objects, or if the perception of the self is unworthy, the adult offspring may reject this connection as an option. In the same sense, Grandiosity may likely have tapped a defensive, grandiose style rather than the true belief in one's superiority.

Results of this study also showed low levels on Social Competency scales and indicated that dysfunctional families may have provided few role models for learning effective social skills. Thus, unempathic or inconsistent parenting may have led to "internalized working models of the self as unlovable, of others as unlikely to meet emotional needs, or both" (Hadley et al., 1993, p. 355). Concerning this, it was suggested that, in growing up in a nonresponsive environment, many of these adults were likely to have learned that only coercive manipulative behaviors are effective in getting needs met. This may explain, in part, high Egocentricity and Alienation Scores, as well. From an object relations perspective, abuse may have fostered an image of the self as bad and unworthy. This may have left a subject yearning for closeness but unable to trust enough to allow intimacy.

Results supported the hypothesis that respondents with dysfunctional histories demonstrated impaired ego functioning, viewed themselves negatively in relation to others, and showed difficulties in self-representation with respect to relationships. The BORRTI results implied that a history of family dysfunction may result in difficulties with trust and intimacy and a view of the self as unworthy (Hadley et al., 1993).

The authors acknowledged that this study was not longitudinal in nature, that data obtained were only retrospective, and that responses were subject to repression and selective recall. Other potential limitations stemmed from a potential sampling bias. Participants in the study were self-selected and self-definition may not have matched clinical assessments of dysfunction. Therefore, this sample may have represented a unique subgroup of the larger population of adult children of dysfunctional families. The researchers also suggested that their study was limited by the "heterosexist bias" with which the test instruments are worded. They explained that retaining the original language of the instruments meant sacrificing the opportunity to capture the diversity of attachment for a proportion of the population (Hadley et al., 1993). Furthermore, the study was not designed with a control group of adults from nondysfunctional families. Results, therefore, were limited to conclusions drawn from dysfunction within the moderate to severe range.

In a related study, Carson and Baker (1994) hypothesized that a positive correlation exists between codependent personality traits and a disturbance in object relations and reality testing. To identify accurately those subjects with codependent traits, the researchers isolated relevant symptoms such as instability of thoughts, feelings, lack of identity development, false self, need for control, and low self-esteem. Subjects were administered questionnaires including the Beck Depression Inventory

(BDI), The Center for Epidemiologic Studies--Depressed Mood Scale, the Bell Object Relations and Reality Testing Inventory (BORRTI), the Depressive Experiences Questionnaire (DEQ), and the Alcohol, Drug Use, and the Family Questionnaire. The latter measure contained items identifying substance use, demographic data, abuse history, and family relationships in each subject's family of origin. An overall codependency score was calculated for each participant by totaling the responses from each scale.

A significant relationship between childhood abuse and codependency was found. More specifically, physically abused ($n = 3$), sexually abused ($n = 11$), emotionally abused ($n = 21$), and those who had suffered from mixed abuse and dysfunction ($n = 47$) comprised 59% of the codependent subject pool. A multiple regression analysis using the subscales of the BORRTI was completed, although none of the individual subscales significantly predicted codependency. However, when the subscales Insecure Attachment and Uncertainty of Perceptions were calculated together, they significantly predicted the overall codependency score.

Among other results, a significant relationship was found between self-critical or introjective depression, with intensity of depression accounting for a significant portion of the variance in codependency. Using a multiple regression analysis to predict codependency, the researchers

found that 18% of the variance in codependency scores was accounted for by the Self-criticism factor on the DEQ. However, no relationship was found between codependency and anaclitic depression.

The authors proposed that codependents may have lacked interpersonal stability and may have tended to feel alienated from others. Feeling mistrustful, withdrawn, and insecurely attached, they may have troubling beliefs about their social competence. Further, results suggested that victims may experience shyness, uncertainty about how to relate to others, and feelings of social inadequacy (Carson & Baker, 1994).

Beliefs Relating to Causality

A final object relations construct which has been viewed through the lens of projective assessment is one's capacity to make accurate, complex and logical attributions of others. Concurrent with the child's developing cognitive capacities as well as positive relationship experiences, healthy development is thought to herald the ability to form causal, realistic attributions. Within the literature, various writers have hypothesized that distortions of interpersonal transactions are typical in the abusive parent-child dyad, and thus, serve to distort later interpersonal and intrapsychic functioning (McCarthy, 1990). Physically abused children are therefore thought to be at risk for developmental arrest in this area and may be seen as making inaccurate or illogical attributions of others.

The studies conducted by Westen et al. (1990), Freeddenfeld et al. (1995) and Thode (1994) examined the understanding of social causality among abused subjects by examining scores obtained on the Understanding of Social Causality (USC) scale in the ORSCS scoring system. High scores were thought to indicate an appreciation of thoughts, emotion, behavior, and social interaction, as well as an appreciation of unconscious, motivational processes. Low level responses, on the other hand, indicated a tendency towards noncausal or even grossly illogical depictions of psychological and interpersonal events. Developmental lags in this area lead to problems in later functioning, including difficulty distinguishing means from ends, problems learning from experience, poor judgment, and inadequate foresight.

Westen et al. (1990) found a significant correlation between low scores on the USC scale and the age of subjects. Results suggested that the earlier the abuse occurred, the more likely a subject was to provide grossly illogical responses. Significant results were not obtained in an analysis of TAT responses from those who had experienced latency-aged risks to development. Therefore, authors concluded that children who were physically abused in their preoedipal years tended to make inaccurate assumptions, formulate implausible descriptions, or appear to lack insight.

Results generated by Freeddenfeld et al. (1995) concurred and found that physical abuse correlated positively with the USC scale. As on other

scales, abused subjects earned low mean scores on this scale and had higher percentages of illogical attributions. The authors concluded from the results that "abused children have difficulty making sense of the world, particularly of relationships" (Freeddenfeld et al., 1995, p. 565). A poor understanding of social causality therefore, was thought to emerge in children who grew up in environments characterized by inconsistent, erratic parental behavior and "whose 'internal working models' of attachment do not permit them to know which way to act and what to expect" (Freeddenfeld et al. 1995, p. 565). Results in this study suggested that a lack of consistency and predictability in early relationships may lead to later deficits in the developing child's interpretation of social causality.

In support of these findings, Stovall and Craig (1990) conducted a qualitative review of TAT responses and noted that physically abused children often made inaccurate attributions to pictures. For example, a child assumed that the pictured violin on Card 1 was broken even though the picture clearly represents a violin which is not broken. The authors related this confusion to the the typical experience of an abused subject, both within his or her internal world, and in relation to the external, unpredictable environment (Stovall & Craig, 1990).

Thode (1994) hypothesized that multiply abused subjects would demonstrate significantly more confused, illogical, or inaccurate attributions concerning interpersonal events than subjects who were only

sexually abused. However, using the USC scale of the TAT, Thode (1994) did not derive significant results from a comparison of the responses of the sexually and multiply abused groups with those of the control sample.

Discussion

Results and Research Methods

The preceding research reviewed recent attempts to identify empirically how object relations are impacted by physical abuse. Although research methods have varied, they reflect the growing awareness that physical abuse almost certainly has deleterious effects on the victim's object relations development. Reported results in most cases indicated significant impairment in specific areas of object relations functioning which were confined to complexity of representations, affect life, capacity for emotional investment, and ability to attribute causality.

It should be noted that some studies failed to generate positive correlations in all four areas. For instance, in contrast with the majority of studies which found varying degrees of association between physical abuse and object relations impairment, Thode (1994) found no significant differences between multiply abused subjects and clinical control groups. In light of these results, the authors pointed to possible differences in clinical groups, stimuli, raters, and statistical designs. While Thode (1994) used

four TAT cards per subject, Westen et al. (1990) used six cards and Stovall and Craig (1990) used five cards. Furthermore, cards which were more affectively charged (e.g., 4, 13MF, 18GF) were used by Westen et al. (1990) and Stovall and Craig (1990). These cards may have potentially elicited very different responses among abused subjects. Also, while Thode (1994) included mean word count and subject age in statistical considerations, Freeddenfeld et al. (1995) and Westen et al. (1990) did not include these covariates. Thode (1994) pointed out that while the reported study maintained greater experimenter control for error through use of these covariates, in so doing they may have lost degrees of freedom as well as statistical power.

Timmons-Mitchell (1982) researched subject's capacities for complex representations and investment in relationships using the Rorschach, but did not find significantly high levels of impairment in the latter category. The authors did note a behavioral trend toward difficulty in engaging with the testing as well as suspicion of the examiner which may have hampered the Rorschach results. These observations qualitatively supported the hypothesis that abused subjects would demonstrate impairment in ability to invest emotionally in relationships. These observations also concurred with other researchers' suggestions that abuse victims have demonstrated expectations of malevolence, pain, or abuse.

Freeddenfeld et al. (1995) did not find significant results in studying subjects' complexity of internal representations. The authors pointed out that both physically abused and control groups scored significantly lower on the CR scale than the analogous community sample reported by Westen et al. (1991). Freeddenfeld et al. (1995) suggested that their nonsignificant results may have been related to the fact that both experimental samples were drawn from a child guidance clinic and not from the community at large. The researchers inferred from these results that deficits in the ability to view self and others in complex ways may not be related specifically to abused children, but may be simply a function of immaturity.

Almost certainly, a portion of the disagreement among results was related to differences among research methods. While many studies examining physical abuse in light of object relations phenomena were supportive of the proposed theoretical constructs, at present, there is no single, comprehensive system or approach to the conceptualization and assessment of object relations phenomena.

While the attainment of a single system of assessment appears ideal, the current state of test construction, including the state of reliability and validity data, is yet incomplete. Several studies, including Westen et al. 1990, Freeddenfeld et al. (1995), Thode, (1994), and Hjorth and Hathaway, (1981) made attempts to address interrater reliability. Related to this, some researchers have complained that scoring processes for many of these

instruments are cumbersome, making results less than likely to be widely agreed upon. Construct validity appears to have been the most widely used approach to validity measures, although unconscious processes are by definition ambiguous and difficult to isolate. Further disagreement concerning research methods as well as validity data appears to stem from different theoretical perspectives within the school of object relations theory.

Further Comments

Given the limited body of related research, it appears that the profession has just begun to document object relations impairments associated with physical abuse. Given the current, restricted scope of the research, it appears that the profession has not yet developed an exhaustive arsenal of instruments with which to measure object relations. The current tools are used to describe object relations functioning in terms of developmental achievements and failures. However, a significant deficit among the current research is its frequent reliance upon data collected from children to isolate developmental arrest or failure. While object relations theory implies that deficits continue to affect adult functioning, few studies included data concerning adult functioning. Results have rarely been presented as representative of not only the developmental impediments which occurred in early childhood, but of the life-long and cumulative effects of object relations impairment stemming from abuse.

Furthermore, the instruments used to measure object relations conscribed findings to specific areas of functioning. While these areas included much of what object relations theory addresses, the diversity of functioning within these areas has not yet been tapped due to the limited scope of the instruments. For instance, a subject may retain views of others which differ in complexity, depending on specifics such as gender, age, or circumstances. A respondent may also show significant pessimism in relationship expectations, but may show optimism in perspectives on career, family or spirituality. In another case, a subject may appear unable to invest in relationships with persons who resemble abusers, but may be able to empathize with and invest in others readily and effectively. Finally, a subject may show difficulty making logical attributions connected with areas of life which are specifically reminiscent of abuse, but may demonstrate adequate logical responses in all other areas. Therefore, while the current methods of object relations measurement are a helpful start, they still require refinement to include more specific and definitive analyses of adult object relations functioning.

Furthermore, experimental design has not included efforts to account for any change (improvement or regression) in object relations functioning among abused subjects over time. It may be that instrument design should be revisited in order to incorporate a view of object relations as continually changing. This is suggested in light of the emerging perspective of object

relations as a constantly changing group of functions which are shaped by not only early developmental milestones, but by continued life experiences. Therefore, changes in functioning may be illuminated by retesting subjects after intervals of time, or at different ages. The body of research seeking to capture a picture of object relations functioning among the physically abused would be enhanced by the knowledge of how these individuals might be expected to change over the years.

With the increase in studies during the past five years, it appears that clinicians and researchers have become increasingly committed in the examination of object relations among the physically abused. However, the final value of any such research emerges in its usefulness in clinical application. It is apparent that the preceding research has established a groundwork for continued study as well as a more informed treatment of physical abuse victims.

It is evident that the addition of more elaborate and comprehensive research samples will improve the current body of research considerably. More descriptive instrumentation and research methods, including more systematic efforts to validate studies with repetition, are warranted. With these improvements in experimental design and methodology, more descriptive data can be acquired to improve the identification and treatment of both child and adult victims of physical abuse.

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